

Remarks

I. Claim Objections. Claims 4 and 23 stand objected to because of certain informalities that have been corrected (as suggested in the Office Action) in currently amended claims 4 and 23.

II. Claim Rejections - 35 USC § 112. Claim 16 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for being an apparatus claim that is improperly dependent upon a method claim. In response, claim 16 has been canceled.

III. Claim Rejections - 35 USC § 103. Claims 1, 2, 9-17, and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the *Sato* patent (U.S. Patent No. 6,470,907). That rejection is hereby traversed. Currently amended independent claims 1 and 17 have been amended to emphasize the patentable differences and claims 10-16 (method claims) have been canceled. As a result, currently amended independent claims 1 and 17 are now allowable along with properly dependent original claims 2, 9, and 19.

Overview. The prior art includes valves designed for insertion in an existing line while the line is under pressure (e.g., for repair or replacement purposes). Installation proceeds as an afterthought with any of various complicated valve structures and associated equipment designed as a retrofit. The instant invention, however, provides a valve body designed for installation in a line when the line is shut down (not under pressure), typically when the line is first installed. The instant valve body includes connection-facilitating elements that facilitate repair of the valve under pressure at a

later time when the line is not shut down. A complete valve (i.e., valve body and valve-stopping mechanism) can be installed for immediate use as a valve. Just the valve body (capped without a valve-stopping mechanism) can be installed so that it is available for use at a later date.

The Sato Patent. The *Sato* patent (U.S. Patent No. 6,470,907) describes an example of the prior art valves that are designed to be inserted in an existing line with the line under pressure. The valve is a multi-piece structure with numerous separate parts and numerous permanent rubber seals that are assembled together over an existing pressurized line for rotation about the line, thereby allowing cutting of the line and insertion of a valve-stopping mechanism.

Nowhere, does the *Sato* patent describe or suggest a one-piece valve body structure for installation in a line when the line is not under pressure such that the valve body includes connection-facilitating means for subsequent repair when the line is under pressure. A one-piece structure would defeat the *Sato* retrofit valve insertion technique. The *Sato* valve has a different purpose than the instant invention (it is intended to be inserted into an existing line under pressure) and the different purpose manifests itself in more complicated and less reliable structure.

Currently Amended Independent Claims. Claims 1 and 7 have been amended to emphasize the patentable differences, no new matter being added thereby. As so amended, each one of currently amended claims 1 and 7 specifies as follows:

“wherein the valve body is a one-piece structure.”

Significance. Nowhere does the Sato patent described or suggest a one-piece valve body that can be installed when the line is not under pressure so that it is repairable at a later time when the line is under pressure. The one-piece valve body structure of the instant invention simplifies manufacture and installation at far less expense. In addition, it allows the valve to reliably carry higher pressures and higher temperatures. Furthermore, it does not require sealing in the upper bonnet area and allows installation into many various types of pipelines while meeting all valve codes as a true valve.

In view of the foregoing, currently amended independent claims 1 and 17 are patentably distinguishable over the *Sato* patent; they are now allowable along with properly dependent original claims 2, 9, and 19. Notification to that effect is requested.

IV. Claim Rejections -- 35 USC §103. Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (6,470,907) in view of the *Yano* patent (3,948,282). That rejection is hereby traversed. Original claim 18 is properly dependent upon currently amended independent claim 17, which is now allowable, and so claim 18 is allowable.

V. Allowable Subject Matter. Claims 3-8 and 20-31 have been identified as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, each of claims 3-8 have been amended to include the limitations of base claim 1 (there being no intervening claims) and claims 20-31 have been amended to include the limitations of base claim 17 (there

being no intervening claims). Thus, currently amended independent claims 3-8 and 20-31 are now allowable and notification to that effect is requested.

VI. Reexamination and Allowance. In view of the foregoing, currently amended independent claims 1 and 17 are now allowable together with properly dependent original claims 2, 9, 18, and 19 and together with currently amended independent claims 3-8 and 20-31 that were identified in the Office Action as allowable. Notification to that effect is requested. Reexamination and allowance are requested.